Power Coupler Design for RIA B. Rusnak, Lawrence Livermore Laboratory

The RIA Driver Linac will require a large number of independently-phased RF cavities to efficiently accelerate beams spanning protons to uranium. The need for 265+ RF couplers spanning 57.5 - 345 MHz encourages developing coupler designs that have are broadband and can share parts to help reduce design and manufacturing costs. Power levels, adjustability options, multipacting levels, and other aspects of the design space shall be discussed.